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From the Editor

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This is the fifth issue this year with variable topics related to the community and education. A paper from Saudi Arabia appraised

Saudi Diploma in Family Medicine (SDFM) from the Perspective of the SPICES Mode. The authors stressed that the Saudi Diploma in Family Medicine (SDFM), a recent postgraduate program in family medicine, started in 2008. They tried to compare the SDFM curriculum with the SPICES model. The SPICES model has six innovative approaches to consider when planning a curriculum. The comparison shows that there are some shortage areas in curriculum of SDFM and it is found more towards the right side of the SPICES model, especially the "problem-based approach" dimension needs more attention.

A paper from Bangladesh attempted a comprehensive evaluation of the activities of some NGOs on the changes in socio-economic conditions of Bangladesh. Bangladesh is known for its innovative approaches in combatting poverty and its successes in such areas of micro-credit, primary education, health and family planning. The main objective of the study was to analyze the impact of NGO activities on socio-economic conditions of their beneficiaries in rural and urban areas of Bangladesh.

A paper from Jordan described an unusual presentation of splenic rupture in a patient with a history of motor vehicle crash and blunt abdominal trauma. The patient experienced gradually worsening difficulty breathing while sitting or lying down for the previous 4 hours, although he was asymptomatic in the upright position. The patient was found to have left upper quadrant abdominal tenderness on examination and free fluid in the pelvis. The focused abdominal sonography revealed a grade III splenic injury with hemoperitoneum which was diagnosed on computed tomography scan and the patient was treated with splenectomy.

A paper from Saudi Arabia looked at Variation of antibiotics prescription among primary health care settings. A Cross sectional retrospective chart review was taken of all patients visiting the two clinics (HCSC, ISKAN) from July to December 2002, to assess antibiotics prescription behavior and its rate among staff physician in two large clinics in NGHA. 108,749 patients visited two centers for 6 months July to December 2002 for different reasons; 85.3 percent were prescribed with antibiotics. There was variability on prescription behavior and rate between the two centers and physicians. The authors concluded that antibiotics prescription rate was very high in their PHC centers with considerable variability among physicians.

A paper attempted to determine whether outpatient tonsillectomy is a safe procedure or not by comparing post operative morbidity in both inpatient and outpatient tonsillectomy. The authors concluded that a day-case pediatric tonsillectomy can be safely performed without increase in rates of postoperative morbidity, but with proper selection of patients and their families, a nearby home and a well prepared day-case unit.

A Cross sectional study from Riyadh, evaluated people's opinions about their health education needs during the H1N1 Influenza A pandemic. The study showed that 57.5% of participants had fear and anxiety to some extent during the H1N1 epidemic, and 64.8% of the participants admitted their need for health education to improve their understanding of the H1N1 illness and decrease their anxiety and fear. The authors concluded that it is highly important to improve strategic planning for scientific health education activities during an epidemic period at primary health care centres, hospitals, and in the community, to avoid misunderstanding and minimize fear and anxiety and improve people satisfactions.

A paper from Libya discussed suicidal attempts that are common violent incident nowadays encountered in the Libyan community. In most cases it seems to be a psychological build up such as withdrawal and severe depression. The author attempted to bring into light such problems encountered in Libya and maybe in all the Arab nations.

Letter to the Editor

Dear Dr Abyad and MEJFM readers,

I have been sent a press release, as a Middle East Publisher, concerning the recent attack in international waters, on the Freedom Flotilla ships en route to Gaza with 800 peace activists and politicians and 10,000 tons of humanitarian aid. At time of press, 19 unarmed passengers have been killed and over 50 more wounded.

All passengers are now imprisoned in the Israeli city of Ashdod, it is reported.

As an outside observer, but one who has worked well and harmoniously in the region and who has great respect and liking for the peoples of the region, naturally I deplore this ongoing barbarity and the suffering it causes to the innocent and the already oppressed.

My sympathies go out to all those suffering from this latest incident - my colleagues in the peace-making realms and the ordinary people of the region who continue to suffer, not from just this act of war, but all regional and global acts of war.

This wonderful region is where civilisation of human kind began and it remains here - some of the most decent and civilised people I have ever met come from this region and it is such a tragedy to see these ongoing atrocities and the politics of divide and rule. Let us all hope that the warmongers in our midst learn to live above the barbarities of life and find more peaceful and civilised means to end not only this conflict, but the folly and tragedy of all human conflict.

Lesley Pocock

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Middle East Journal of Family Medicine

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New Paradigm Journal

South Asia Journal of Family Medicine

Assessment of people's opinion towards their health education needs during the H1N1 influenza pandemic

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ABSTRACT

Objective: The objective of this study is to evaluate people's opinions about their health education needs during the H1N1 Influenza A pandemic.

Method: A cross sectional study was conducted during December 2009 in primary care clinics at King Khalid University hospital, Riyadh, Saudi Arabia. An Arabic questionnaire was distributed to adult males and females who attended the primary care clinics. The questionnaire contained demographic data and their different opinions about health education activities during the H1N1 Influenza A pandemic. 400 questionnaires were collected, and data was entered and analyzed using Statistical Package of Social Science (SPSS version 12).

Results: The study showed that 57.5% of participants had fear and anxiety to some extent during the H1N1 epidemic, and 64.8% of the participants admitted their need for health education to improve their understanding of the H1N1 illness and decrease their anxiety and fear. Most of the participants in this study (77%) got their health information from television, which might be more attractive for the public, while only (22.8%) got their health education from physicians. About a quarter to a third of participants were not satisfied at all regarding health education activities in the teaching hospital, primary health care center, and in the community.

Conclusion and recommendation: It is highly important to improve strategic planning for scientific health education activities during epidemic periods at primary health care centres, hospitals and in the community, to avoid misunderstanding and minimize fear and anxiety and improve people's satisfaction.

Key words: H1N1 influenza, health education, satisfaction

Introduction

The novel pandemic A/H1N1 virus, which contains swine, avian, and human elements, began to cause illness after it first emerged in Mexico in March 2009 (1). The three pandemic viruses that emerged in the 20th century, the 1918 (Spanish influenza) H1N1 virus, the 1957 (Asian influenza) H2N2 virus, and the 1968 (Hong Kong influenza) H3N2 virus, all spread rapidly around the world, but only the 1918 virus was associated with mortality measured in the thousands per 100,000 population (2). The World Health Organization declared the first phase 6 global influenza pandemic of the century on June 11, 2009. The largest numbers of confirmed cases have been documented in the United States, Mexico, Canada, Chile, and Australia. Mexico and Canada have both experienced large localized outbreaks of infection with severe illness requiring intensive care unit admission and ventilator support (3). The risk factors for transmission of this emerging virus remain largely uncharacterized, particularly in subgroups such as households (4). H1N1 Influenza A has reached Saudi Arabia and poses a risk to the young population without immunity, and those with co-morbid disease, particularly of the lungs, and the pregnant. Despite its virulence in infecting people, deaths are far less than anticipated for such a novel virus(5). Patient education about illness is very important as patients with inadequate health literacy often feel a sense of shame and decreased worth, and they may be too embarrassed to ask their physician to explain or repeat instructions and other relevant information (6). The objective of this study is to evaluate people's opinions about their health education needs during the H1N1 Influenza A pandemic.

Methods

A cross sectional study was conducted during December 2009 in primary care clinics at King Khalid University hospital, Riyadh, Saudi Arabia. An Arabic questionnaire was distributed to adult males and females who attended the primary care clinics. The questionnaire contained demographic data, and their different opinions about health education activities during the H1N1 Influenza A pandemic. 400 questionnaires were collected, and data was entered and analyzed using Statistical Package of Social Science (SPSS version 12)

Demographic data	Frequency	Percent 100%
Age		
less than 20	46	11.5
20-39	183	45.8
40-59	132	33
60 and above	32	8
Missing data	7	1.9
Sex		
Male	199	49.9
Female	201	50.2
Marital Status		
Married	255	63.8
Single	106	26.5
Divorced	8	2
Widow	16	4
Missing data	15	3.7
Educational level		
Illiterate	40	10
Can read and write	29	7.2
Elementary	21	5.2
Intermediate	43	10.7
Secondary	110	27.5
University	140	35
Master	11	2.8
PhD	3	0.8
Missing data	3	0.8
Total	**400**	**100**

Table 1: shows demographic data among the 400 participants

Fear and anxiety from H1N1 infection	Frequency	Percent 100%
Yes	124	31
No	161	40.2
Somehow	106	26.5
Not answered	9	2.3
Total	400	100

Table 2: shows participants' fear during the H1N1 Influenza A pandemic

Participants' health education needs	Frequency	Percent 100%
Yes	184	46
No	128	32
Somehow	75	18.8
Not answered	13	3.2
Total	400	100

Table 3: shows participants' health education needs about H1N1 influenza A pandemic

Source of health education about H1N1	Frequency	Percent 100%*
Physicians	91	22.8
Newspapers and magazines	189	47.3
Television	308	77
Radio	91	22.8
Health education leaflet	141	35.3
Lectures	54	13.5
Health educators	39	9.8
Internet	6	1.5
Other	2	0.5

*More than one answered has been chosen by participants

Table 4: shows sources of health education among the 400 participants

Satisfaction	Frequency	Percent 100%
Satisfied	158	39.5
Not satisfied	79	19.8
Partially satisfied	151	37.7
Not answered	12	3
Total	400	100

Table 5: shows participants' satisfaction towards health education activities for H1N1 at King Khalid University Hospital

Satisfaction	Frequency	Percent 100%
Satisfied	92	23
Not satisfied	144	36
Partially satisfied	144	36
Not answered	20	5
Total	400	100

Table 6: shows participants' satisfaction towards health education activities for H1N1 at Primary health care center

Satisfaction	Frequency	Percent 100%
Satisfied	142	35.5
Not satisfied	93	23.3
Partially satisfied	155	38.7
Not answered	10	2.5
Total	400	100

Table 7: shows participants' satisfaction towards health education activities for H1N1 in the community

Diagnosed to have H1N1 by physician	Frequency	Percent 100%
Yes	14	3.5
No	344	86
Had similar symptoms but did not visit doctors	38	9.5
Not answered	4	1
Total	400	100

Table 8: shows H1N1 infection among 400 participants which was confirmed by swabs and physician diagnosis

Discussion

The current study highlighted the importance of health education activities during the epidemic crisis, such as what has happened during the H1N1 Influenza A epidemic. About 57.5% of participants in this study had fear and anxiety to some extent during the H1N1 epidemic, and 64.8% of the participants admitted their need for health education to improve their understanding of the H1N1 illness and decrease their anxiety and fear. The first Influenza pandemic of the 21st century is considerably less lethal than was feared in advance. Case fatality rates vary by age in a similar pattern to the two previous pandemics but are currently much lower. This is fortunate, but the challenge of risk communication and policy making remains (7). Most of the participants in this study (77%) got their health information from television which might be more attractive for the public, while only (22.8%) got their health education from physicians. This emphasizes the importance of improving the role of physicians in delivering health information to the public especially during epidemics. Many efforts to improve quality of patient care and reduce uncertainty and to rationalize care have come in the form of guidelines, now generally presented in a formal, evidence-based fashion (8-14). About a quarter to a third of participants were not satisfied at all regarding health education activities in the teaching hospital, primary health care center, and in the community. Research has shown that the way patients perceive their connection with their physician significantly influences their sense of satisfaction and level of concern about their health (15-20). This emphasized the importance of strategic planning for health education programmes during an epidemic crisis, to improve people's scientific health knowledge, satisfaction and minimize misunderstanding and fear.

In conclusion: it is highly important to improve strategic planning for scientific health education activities during an epidemic period at primary health care centres, hospitals and in the community, to avoid misunderstanding and minimize fear and anxiety and improve people's satisfaction.

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Safety of Outpatient Pediatric Tonsillectomy

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ABSTRACT

Objective: To determine whether outpatient tonsillectomy is a safe procedure or not by comparing post operative morbidity in both inpatient and outpatient tonsillectomy.

Methods: Children of ages (2-13) years who underwent tonsillectomy with or without adenoidectomy and grommet insertion at Princess Haya Hospital in Aqaba from January 2008 to March 2009 were enrolled in the study. Patients were divided into 2 groups: group A who underwent inpatient procedure and group B who underwent outpatient procedure. All patients were evaluated 10 days after the operation for postoperative morbidity (bleeding, fever and number of days before resuming normal diet).

Results: Five patients developed bleeding, 2(3.4%) in group A and 3(4.9%) in group B; 9 patients developed fever, 5(8.6%) in group A and 4(6.6%) in group B. Patients in group A took 4.48 days to resume normal diet and they took 4.23 days in group B.

Conclusion: A day-case pediatric tonsillectomy can be safely performed without increase in rates of postoperative morbidity, but with proper selection of patients and their families, a nearby home and a well prepared day-case unit.

Key words: Day-case surgery, tonsillectomy, bleeding.

Introduction

Tonsillectomy with or without adenoidectomy still is one of the most commonly performed surgical procedures in the world, mostly in the pediatric population (1). Today, procedures followed by several hours of hospitalization known as 1-day surgery are beginning to gain wide acceptance (2). Over the last 20 years the length of stay for many surgical procedures has become progressively shorter and there is no doubt that there are many operations which can be performed very satisfactorily and without risk in a day-case setting (3).

The advantages include a shorter absence of the child from home, hospital cost reduction, shorter waiting period for elective surgery, an increase in the rate of patient turnover and the psychological trauma of hospitalization is minimized(2). Because of these benefits there has been increasing demand for day-stay surgery, and it has become an integral part of modern otolaryngology (4).

The main current indications for tonsillectomy and adenoidectomy are recurring infections and blockages of the upper airways, which may possibly lead to serous otitis media, repetition otitis media, rhinosinusitis, snoring, sleep apnea, and altered craniofacial growth, often compromising the child's development and performance

at school(1). It is associated with significant morbidity and the first week post-tonsillectomy can be extremely difficult for both child and parents (5).

Post-tonsillectomy hemorrhage remains the most serious complication of tonsillectomy (6), which has been divided into two broad categories; primary, occurring <24 hours after surgery and secondary, occurring >24 hours post operation although commonly 5-10 days after the operation(7). Published rates for primary hemorrhage vary from 0.3% to 2.1% and secondary bleed rates requiring at least admission to the hospital vary from 2% to 10.3% (8).

Other postoperative morbidity is often significant and symptoms include; odynophagia, dysphagia, otalgia, fever, halitosis, and decreased oral intake (9).

The purpose of this study was to answer the question: is tonsillectomy one of the procedures that can be done safely on an outpatient basis?

Patients and Methods

This study was carried out at Princess Haya Hospital in Aqaba from January 2008 to March 2009, and children of ages (2-13) years who underwent tonsillectomy with or without adenoidectomy and grommet insertion were enrolled in the study.

Exclusion criteria included: use of antibiotics 2 weeks before surgery, chronic medical illnesses, syndromatic patients and development of any complication in the recovery room.

Patients were divided into 2 groups based on the distance of their residence from the hospital, and accessibility to car or telephone.

Group A: patients who underwent an inpatient procedure (overnight stay in hospital and discharged home in the following day). Their residences are of more than 10 km away from the hospital or access to a car, or a telephone, is unavailable.

Group B: patients who underwent an outpatient procedure (4 hours observation in the recovery unit before discharge). Their residences were within 10 km from the hospital, and they had access to a car or a telephone.

All operations were done by specialist using bipolar diathermy for dissection and homeostasis. All had similar anesthetic technique. All patients in group B were observed by nursing staff for 4 hours postoperatively in the day-stay unit. All were given the same post operative analgesia and antibiotic (amoxicillin, dose according to age and body weight). Prior to discharge all patients were seen by an ENT specialist and if the child was well with no evidence of bleeding, and with good eating and drinking and not in distress, they were discharged home.

Parents were advised to bring their child to hospital if they had any bleeding. All patients were seen after 10 days post surgery and were asked about:

-Any bleeding.
-Any fever.
-Number of days before resuming normal diet.

Results

One hundred and twenty eight patients were initially enrolled in the study, aged from 2 to 13 years (mean age 5.9). There were sixty-two patients in group A and 66 patients in group B. There was no statistical difference in age or gender between the two groups.

Total number of patients found to be eligible in our study was 119; with 58 patients in group A (inpatient procedure), and 61 patients in group B (outpatient procedure). Nine patients were excluded from the study. The number of patients and causes of exclusion are summarized in Table 1; all were admitted to hospital and excluded from the study.

Reason for exclusion	Group A (62)	Group B (66)
Received antibiotics	1	1
Chronic illness	0	1
Syndromes	0	1
Reactionary bleeding	2	0
Vomiting	0	2
Laryngeal spasm	1	0
Number of patients excluded	4	5
Total number of patients enrolled	58	61

Table 1: Number of patients and reasons for exclusion

Type of surgery performed in each group is summarized in Table 2. 40 patients underwent tonsillectomy alone, 62 had tonsillectomy with adenoidectomy and 17 adenotonsillectomy with grommet insertion.

Type of surgery	Number	Group A	Group B
Tonsillectomy	40	22	18
Adenotonsillectomy	62	28	34
Adenotonsillectomy + grommets	17	9	8

Table 2: Type of surgery

The majority of patients in both groups appeared to tolerate the procedure well in the immediate recovery phase, however Table 3 summarizes postoperative morbidity seen in both groups.

Characteristic	Group A	Group B
Number	58	61
Bleeding	2 (3.4%)	3 (4.9%)
Fever	5 (8.6%)	4 (6.6%)
Days before normal diet	4.48	4.23

Table 3: Postoperative morbidity

Five patients developed bleeding (secondary type), 2 of them from group A and 3 of them from group B; they were admitted to hospital and treated conservatively. No statistical difference was found between the two groups.

Nine patients developed fever, 5 of them from group A and 4 of them from group B. All parents were told to observe how many days passed before the child resumed hi/her normal diet. It took 4.48 days for group A and 4.23 for group B. Again no significant statistical difference was found between the two groups.

Discussion

The performance of tonsillectomy as a day case procedure remains controversial with concerns over postoperative morbidity, especially hemorrhage (10) . In Jordan, particularly in the Royal Medical Services, tonsillectomy with or without adenoidectomy and grommets is usually performed as an inpatient procedure.

Over the last 10 years there has been a move towards performing many surgical procedures on a day-stay basis. One of the major driving forces leading to this change in surgical practice has been the pressure to reduce health care costs and it is this which has led to many hospitals having developed day-stay units with nursing staff dedicated to this specialist form of surgery (4).

To minimize the potential for complications, appropriate patient selection is essential, as not all children are good candidates for day surgery. The family should remain close to the hospital and the parents should be responsible and capable of following postoperative instructions. Another essential factor in day surgery is the discharge criteria which includes stable vital signs, ability to tolerate fluids, control of pain, absence of nausea and responsible parents to care for the child (11).

Chiang et al reported in 1968 on 40 000 cases of outpatient tonsillectomy with little morbidity and no mortality(12), however, there has been ongoing and justified concern regarding what constitutes an adequate period of post operative observation before discharge(13). Mitchell et al and Gablski et al have suggested the post tonsillectomy observation may be safely reduced to 4 hours (14).

The average length of observation period in our study was 4 hours post operatively, which is similar to that reported by Gablski and excellent outcomes were found on the basis of rate of post operative complications.

In our study we compared both groups based on complications post surgery. The most important and serious complication was bleeding which occurred in 7 patients, 2 of them were primary and were excluded from the study. The other 5 (4.2%) were secondary in type, 2 (3.4%) of them in group A and 3 (4.9%) in group B; all were admitted and treated. No significant statistical difference was found between the two groups.

Both groups were found to have nearly similar rates of fever. In group A 5 patients developed fever (8.6%) and 4 patients in group B (6.6%). Patients in both groups resumed normal diet as an average, on the fifth day.

A study done by Laureyns G, et al, to assess the safety of tonsillectomy as an outpatient procedure found that there was no increase in incidence of bleeding and concluded that tonsillectomy can safely be performed as day-case surgery (15).

In conclusion, day-case pediatric tonsillectomy can be safely performed with no increase in rates of postoperative morbidity, but with proper selection of patients and their families, a nearby home and a well prepared day-case unit.

Conclusion

In conclusion, a day-case pediatric tonsillectomy can be safely performed with no increase in rates of postoperative morbidity, but with proper selection of patients and their families, a nearby home and a well prepared day-case unit.

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Variation of antibiotics prescription among primary health care settings

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ABSTRACT

Objective: **To assess antibiotics prescription behavior and its rate among staff physicians in two large clinics in NGHA.**

Method: Cross sectional retrospective chart review of all patients visiting the two clinics (HCSC, ISKAN) from July to December 2002.

Result: 108,749 patients visited two centers for 6 months July to December 2002 for different reasons. 85.3 percent were prescribed with antibiotics. There was variability on prescription behavior and rate between the two centers and physicians.

Conclusion: The antibiotics prescription rate was very high in our PHC centers with considerable variability among physicians.

Keywords: Antibiotics, Primary Health Care, Prescription, Variation

Introduction

The rapid rise in prescription drug cost is the fastest-growing driver of overall medical cost inflation. Pharmaceutical cost is anticipated to surpass hospital cost soon if left unchecked. (4, 5, 6)

Rising medical cost presents a challenge to the healthy institution manager who demands price restraint without compromising quality or access to care. The pharmaceutical industry continues to introduce new, usually higher-cost drugs with aggressive marketing campaigns to providers and through direct consumer advertising activities which have increased demand for these newer and not always better drugs. These efforts have resulted in increased prescription drug use, drug costs and variation among physicians. (4, 5, 6)

Increasing antibiotics resistance, spiraling pharmaceutical cost, need of evidence based practice, public awareness and widespread variation in prescribing practice, which may lead to quality and safety issues, are reported as the drivers for improving antibiotics use and prescribing. (1)

Previous studies documented the variations among primary health care physicians in antibiotics prescription for either specific or certain disease like URTI. (1,2,3,4) Australia has a high rate of antibiotics used. The Australian Council for safety and quality in health care suggests computerized prescribing as one of several strategies to reduce medication critical incidents.(1, 3)

For change in practice, areas like antibiotics prescribing and physician behavior are highly complex and require a series of systematic approaches. Doctors are only one of the multiple stakeholders involved in this process. The level of experience, training background, and awareness of the public health and clinical implications of such interventions vary widely among doctors.

Development and evaluation of quality initiatives need more than just passive information provision. It has been suggested that any such quality and safety initiative should have set priorities, and these priorities should be developed using a systematic evaluation process with explicit criteria. (2)

This study is aiming at addressing of antibiotics prescription variation among primary care physicians.

Methodology

Study types : Cross-Sectional
Site : HCSC, ISKAN Polyclinics, NGHA, Riyadh City, KSA.
Period : Six months form July - December 2002
Data Collection: We defined the five most commonly prescribed antibiotics and we obtained the prescription rate for each antibiotic from a computer database available in each center.
Data/ Analysis: The data was presented as percentage or odd ratio.
HCSC Center response rate: 83 percent (9/11);
Iskan Center: 82 percent (19/23) almost equal to and possibly due to a busy clinic, some doctors are not interested in research.

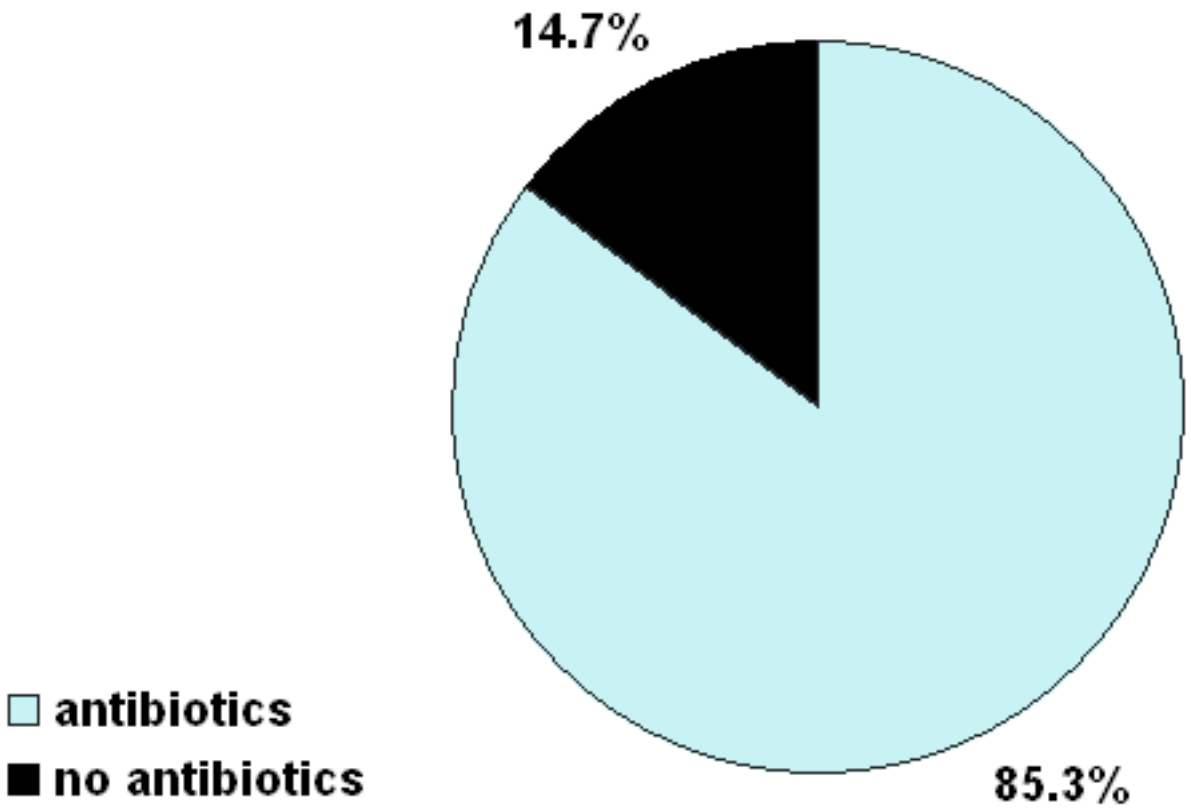

Figure 1: Percentage of antibiotics prescribed in 6 months to overall PHC attendance in both centers

Figure 1 shows that the mean of antibiotics prescription by physicians in both Centers was 85.3 percent of those who attended Iskan and HCSC who were prescribed antibiotics.

	HCSC	ISKAN
OVERALL PHC VISITS	98293	104560
ANTIBIOTICS PRESCRIBED	92095	80963
Percent	93.60	77.40

Table 1: Percentage of total antibiotics prescribed per total number of patients attended per center

Table 1 shows prescription of antibiotics for patients who attended HCSC & ISKAN. The total number of patients attended HCSC and ISKAN in 6 months were 98,293 and 104,560 respectively; with 93.6 and 77.4 percentage of antibiotics prescribed respectively.

	HCSC	HCSC	ISKAN	ISKAN
TOTAL (Antibiotics Prescription)	M	F	M	F
173058	27292	64803	45853	35110
Percent	15.7	37.5	26.5	20.3

Table 2: Total percentage of antibiotics prescribed in both centers among physicians

Table 2 shows that females in HCSC had the highest percentage of antibiotics prescription (37.5) followed by males in ISKAN (26.5). The lowest antibiotics prescription was noticed in male Doctors of HCSC (15.7)

Gender	HCSC	ISKAN
Male	0.66	1.05
Female	1.5	0.96

Table 3: Odd Ratio (OR) for antibiotic prescription among physicians in HCSC & ISKAN

Table 3 signifies that among physicians of HCSC, females were the highest (OR 1.5); while males were the lowest (OR 0.66)

Antibiotics	Number	Percent
Amoxil	94682	54.7
Cefuroxime	35004	20
Augmentine	30025	17
Cephalexin	7866	4.5
Azithromax	5481	3.1
	173058	

Table 4: Specific antibiotics prescription percentage for both HCSC & ISKAN Clinics

This table shows that the highest prescribed antibiotics is AMOXIL (54.7 percent)

HCSC female doctors have the highest percentage of prescribing Cefuroxime (42.2), Amoxicillin (37.3) and male doctors for Azithromax (55.4). While ISKAN male doctors have the highest percentage of prescribing Cephalexin (44.7) and Augmentin (40.0).

Discussion

85 percent of attendees in both centers prescribed antibiotics; HCSC (93.6) and ISKAN (77.4). This percentage was considered very high compared to other studies. 7-13 Two of these studies found that antibiotics prescribed by 67.8 percent, and 69.9 percent was inappropriate. 12-13 While 5 studies 7-11 prescribed antibiotics for less than our study ranging from 45 to 69.8 percent. One study 7 found that in most children <5 yrs 100 percent who attended the clinics in 1995 were prescribed antibiotics, which is higher than in our study, and dropped to 69.8 percent in 1999. Two studies in the Gulf States (Sharjah) 10 found that 45 percent and 51 percent respectively of those who attended the primary care setting were prescribed antibiotics.

In the first study 10 after educational intervention by antibiotics control committee, this percentage dropped to 35 percent. In the USA 26 percent of patients with URI were prescribed with antibiotics 15 while in Hongkong 16, 30 percent of patients with infection were prescribed with antibiotics and only 5.2 percent of patients with URI were prescribed with antibiotics.

HCSC female doctors got the highest percentage rate of prescribed antibiotics (37.5) (OR 1.5), while male doctors got the lowest (15.7)

Type	Center	Male	Percent	Female	Percent	Total
AMOXICILLIN	HCSC	10692	11.3	35353	37.3	94682
	ISKAN	27682	29.2	20951	22.1	
CEFUROXIME	HCSC	6522	18.6	14786	42.2	35004
	ISKAN	8017	22.9	5679	16.2	
AUGMENTIN	HCSC	6800	22.6	5565	18.5	30025
	ISKAN	12034	40.0	5626	18.7	
CEPHALEXIN	HCSC	297	3.8	2155	27.4	7866
	ISKAN	3513	44.7	1901	2.4	
AZITHROMAX	HCSC	2981	55.4	475	8.7	5481
	ISKAN	1072	19.5	953	17.9	

Table 5: Specific Antibiotic Prescription Percentage per Center (Physicians' Gender)

(OR 0.66). ISKAN male doctors prescribed more antibiotics with 26.5 percent (OR 1.05) than female doctors 20.3 percent (OR 0.96). Among female doctors, HCSC prescribed 37.5 percent, while ISKAN 20.3 percent. Among male doctors, ISKAN got 26.5 percent more antibiotics prescribed than HCSC. There was no significance of the gender in choosing and prescribing specific antibiotics between the two centers. Half of the prescribed antibiotics were Amoxicillin (54.7 percent) since it is well-known for its safety and tolerable with a broad spectrum range of coverage.

Amoxicillin ranked first with 37.3 percent, second was Cefuroxime with 20 percent prescribed by HCSC female doctors, among the highest antibiotic prescribers (42.2 percent). Augmentin was the 3rd most prescribed (17 percent) while ISKAN male doctors were the highest prescribers (40 percent). Almost 97 percent of antibiotics prescribed were Penicillin and Cephalosporin and their derivatives which is much higher than the finding of Halasa et al Study (7), where it was 70 percent in 1997. Azithromax was the lowest prescribed antibiotic with 3.1 percent, since it was a newly introduced drug to our primary care settings. Among male doctors, HCSC were the highest antibiotic prescribers; perhaps they are more aware and familiar with them, aside from attending educational activities related to antibiotics.

THE CAUSES OF ANTIBIOTICS PRESCRIPTION MAY BE RELATED TO:

1. Different background and experience of antibiotics among physicians.
2. Type of patients may affect the type of antibiotics prescription.
3. The wide range of medical problems that family physicians manage which may affect this variation of antibiotic prescription.
4. The use of antibiotic depends on cultural, socio-economic factors, Physicians characteristics as well as its microbiological considerations.

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Suicidal Behavioural attempts in Libya

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ABSTRACT

Suicidal attempts are common violent incidents nowadays encountered in the Libyan community. I guess every single house has been afflicted by such tragedies. It is common to hear about it in any social meetings that a young boy or a girl has committed suicide. There should be a strong reason beyond that where the mental will over the control of oneself, and instruct it to commit this crime against oneself. In most cases it sounds to be a psychological build up such as withdrawal and severe depression. Such loss of a human being is costly to the community and it should be tackled efficiently to find out how to overcome the problem, and face it in real life, in order to reduce its occurrence. For this issue I decided to bring into light such problems encountered in Libya and maybe in all Arab nations.

Introduction

Suicide is a violent form of death (self-harm). It is a power directed and inflicted against one self. It costs a huge burden for a society, and public health. However cultural heritage of Libya and the Islamic religion and beliefs forbid such acts, and plays an important role in the prevention of such criminal acts.

Young males and females constitute the main core of suicides in any community as they are the foreseen productive part, and therefore a study should be constructed to find out the reason for this. It is not clear yet if any class discrepancy has a role in this, but it can affect both low and high classes as well, but mostly those with poor quality of life. Some factors are important to be considered such as alcohol and drug addiction, social breakdown and problems such as divorce, relationship conflicts and loss, negative life thoughts, neglect, social isolation and withdrawal, psychological distress, hopelessness, adaptation difficulties after loss, breaking up, and spouse death. All would imply the existence of anxiety and irritability overlapping, and precipitating suicidal behaviours (1,2). Some studies indicate existence of anxiety, suicidal thoughts and suicidal ideation in the preceding couple of weeks before the suicidal attempts and completion(3). Another act which is considered to be a part of committing suicide is self-mutilation and self-injury(4). The suicide methods committed in Libya by boys seems to be asphyxiation (hanging mostly), and other common methods by girls are poisoning (intentional medicine overdose such as paracetamol or anti-diabetic tablets), or self-immolation (self-burning by setting oneself on fire)(5).

After all suicide is a mental disorder especially the pathological depression. It can be seen in any age group especially our teens. It has been found that psychotic disorders often start in teenage years (6).

It has been found that those cases who had a history of at least one suicide attempt, would all the time have suicide ideation and planning until they get the mission done. All those mental patients are thought to be, and it is still believed, that they are possessed by a bad Moslem genie (devil)(7). And for that they seek the help of a priest (Skhieh or a magic dealing person). Many people are deluded by such facts and they only do what this skhieh instructs, blindly. In the old days, these problems were attributed to the ailment basis in uterus and heart by the Egyptian pharaonic era beliefs (7).

A study was carried out to see the link between religions and suicide attempts, and three main theories were speculated accordingly,

and these are “integration theory” (Durkheim, 1897/1997), “religious commitment theory” (Stack, 1983a; Stark, 1983), and “network theory” (Pescosolido & Georgianna, 1989) (8).

Durkheim’s theory of suicide explained the relationship between an individual and the society they lived in. He summarised the reason why people attempt suicide in the lights of the degree of an individual’s role in society, and social isolation. Durkheim found that the degree of social interaction, and not psychological factors was the cause of suicide in his theory.

On the other hand, Stack finds that the lower the religiosity in a nation, the higher its overall suicide rate. It is after all the individual attitude processes involving how religion endorses meaning for individuals and thereby lowers the risk of suicide (9).

Pescosolido and Georgianna noted that an obligation to a set of personal religious beliefs seems to be a more important factor against suicidal behaviour than social cohesiveness per se. It is operating through a social network mechanism and it seems to be more complex than Durkheim’s theory.

So this would indicate that religion after all appears to matter, but it doesn’t matter what kind of religion it is, so this would mean influences of religion on suicide maybe modelled according to certain social and geographical locations and backgrounds (8-9).

Most suicidal people have lack of meaning in their life, and this causes despair, alienation and suicide thoughts. So suicide seems to be a relief factor to the stressed state of being. Marsella declared; “it seems to me that many discomforts, disorders, and diseases of our time are related to an absence of meaning-seeking and meaning-making” (10), whereas Tacey emphasises the concept of “soul ignorance” (unattended soul), and thus a feeling of emptiness and aimlessness, as chronic anxiety, uncertainty, and deep despair (11).

We should address why other people can stay alive, though they have been through bad and difficult situations. So what make suicidal people different (8,11)?

Another problem faced is underdiagnosed and underreporting of suicide attacks, especially in our community and this can be attributed to culture, beliefs, spiritual orientation, tribal factors, prohibition, and avoidance of scandals as there is a stronger stigma against suicide, and therefore with covering up there are no actual records for suicidal rates (8). Before it was thought that suicidal rates are more prominent only in the non-Muslim countries, but the truth, as we can see that rates of attempted suicide do not appear to be lower in Muslims as compared to non-Muslims. And as there are no actual studies yet, and no literature data for the various Arab countries and territories, it is quite hard to find the actual reason for this (12-13).

A more in-depth study should be done, and targeted to understand, and analyse the factors beyond this in Libya, putting into consideration gender and age. After all, in the context of existing religions, Islam is a religion that totally forgives any evil doing and that would demand clean spiritual intentions for purification with god. Though some studies showed indications of religious beliefs as a possible risk factor for suicidal ideation as well (8). Religion generally speaking is defined as a formal, ritualized and institutional system of beliefs. Thus a lack of consideration of religion would have influence on people lives. After all religion helps patients to cope much better with their illness and the difficult situations encountered in life, in terms of stress adoption, and experience better mental health (8).

Additionally, Islam rules are clarified in several aspects in the holy Quran for every time and any nation, as Islam prohibits and disapproves taking your own life which is only created by God Almighty, and only God has the right to end a life. The severity of this sin is so strong that funeral prayer is not allowed by Muslims for the suicidal person, and therefore measures should be emphasised and implemented in our teens, in order to tackle this problem at its earliest convenience (8,12). Moreover, individuals with a religious affiliation would have less suicidal ideation and thoughts. It is found that more frequent prayer would be associated with less suicidal ideation and attempt (8). This would suggest that religious affiliation would have positive thoughts and thus overcome negative effects of depression, stressful life and hopelessness (14). Though some studies found that religion plays a role in suicide, so those who commit suicide do not believe in God, in after life, and so they are less religious. This can be explained to be a reorientation of religious beliefs from those they were brought up with. Therefore it is a combination of mental illness and moral problems with less religious values, lost faith and committments7. However those findings are not confirmed yet by others as research didn’t focused more on the non-religious issues (religious affiliation and suicide attempts) (15).

Another aspect that should be highlighted as well is Euthanasia which has created a lot of debate and has undergone a transformation from the world of philosophy, ethics and law points of view recently, as legislation has been modified to follow it as well, and still Islam does not support the concept of assisted suicide as an ethical issue, and it is considered to be a criminal act (14).

Conclusion

There is a raised and alarming trend of mental health conditions in our teens, and this has been of growing concern lately, and therefore this public health problem should be addressed. The question comes to mind, why do our teens accept the suicidal thoughts; however, so far there is no detailed documentation and epidemiological studies or data about it in Libya. This can be attributed to under-reporting.

It is clearly found that those cases who committed suicide had planned their suicide prior by the way they

were found hanged. Therefore such cases at risk of suicidal behaviour should be identified and a valuable support for persons with suicidal tendencies should be given by the surrounding family and caregivers (coherence sense). They should be questioned about their meaning of life and death, its value and purpose, also how to respond to crises.
Every physician should pay special attention to those suicidal cases with extreme anxiety and psychomotor agitation or psychotic symptoms such as hallucinations or delusions, and have the clinical intuition to diagnose those cases urgently.
Thus, it is important to develop suicide prevention programs in order to understand better the attitudes, beliefs, views and significance and meaning of suicide and the value of religion in relation to suicide.

There is after all more than a body and mind in every one of us, and that extra call needs to be heard, addressed, and considered in research, daily clinical practice, and daily life. It is something greater than the self; a higher power.

After all, our Islamic parameters have provided positive forces to counteract any suicidal ideation and negativism in those events of depression, hopelessness and stress. Therefore we need always to go back to our Islamic bounds and apply them in every aspect of our life, and yet we need to teach our teens and lead them because lack of affiliation may be a risk factor for suicidal attempts, and therefore more hostility, more anger, and more aggression, and therefore less coping with stress.
After all religious commitment promotes social ties and reduces alienation. And as most religions stress the importance and value of family, it is important to keep religious upbringing, religious practice, personal devotion and follow Islamic rules in every aspects of our life.
To the best of our knowledge there is no current study or yet recorded data about suicide rate in Libya in the literature, so it is also mandatory to develop a national registry and surveys for any violence against oneself, and develop an injury surveillance system with precise and reliable data in order to facilitate more in-depth study and research of suicide trends in Libya, and thus develop a strategy for prevention and intervention to keep the incidence low.

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Impact of the NGOs on socio-economic Conditions in Bangladesh: A Study on Rajshahi District

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ABSTRACT

The study is a comprehensive evaluation of the activities of some NGOs on the changes in socio-economic conditions of Bangladesh. Bangladesh is known for its innovative approaches in combating poverty and its successes in such areas of micro-credit, primary education, and health and family planning. However, a high level of poverty still remains with a set of social indicators figuring below other developing countries. This includes persistently low per capita income, low education level, high infant and maternal mortality rates, etc. This reflects some of the significant gaps yet to be filled in achieving the country's development goals. The Government of Bangladesh is responsible for determining the general policy directions for the nation's development but cannot alone bring about sustained improvements in the lives of the poor. The extensive network of private voluntary development organizations that exist in Bangladesh offers a tremendous resource potential, which can be drawn upon to help tackle the nation's vast development needs. NGOs are universally recognized for their exceptional ability to reach the grassroots. The paper findings and statistical analysis of the study according to the data directly collected from the field. The main objective of the study is to analyze the impact of NGO activities on socio-economic conditions of their beneficiaries in rural and urban areas of Bangladesh.

Key Words: NGOs, Socio-economic conditions, Rajshahi District, Impact

Introduction

The emergence of the Non-Governmental Organization sector is a significant phenomenon from the standpoint of development. By playing an important role in development, this sector has earned its own identity all over the world. Over the last several decades, the meaning, nature and scope of development have undergone considerable changes. The NGOs have emerged as "third sectors" with a view to address the needs of development (Holloway, 1995). NGOs have emerged as significant actors in Bangladesh's development scene only in the 1970s. During the course of the last three decades, they have made themselves inseparable from the country's economic, social and political development process.

Non-governmental organizations (NGOs) in Bangladesh constitute the country's non-profit private sector in development. Their activities embrace various fields of development and are largely geared to alleviating poverty and promoting sustainable development. In recent days, the role of NGOs, engaged in the developing countries of the third world has become a highly discussed topic. Bangladesh is a country of villages, high population and rural economy. Most of its population is used to rural customs and manners. In today's world the lives of people are centered and oriented on the villages. Among all government, non-government involvement is vital. Over the last two decades the NGO sector

in Bangladesh, like in many other places in the world, has performed as a major actor in facilitating the process of institution building of the poor at the grassroots (Clark 1991).

Voluntary works and undertakings of social works in respect of extending benefit to the less fortunate people had been here in Bangladesh. These beneficial tasks were mainly undertaken having been inspired by the religious spirits and also by the on-going, social and cultural values. Even the landlords and well-to-do persons though usurping poor people's rights, undertook several works inspired by the concept and spirit of voluntarism. These activities include establishment of schools, hospitals, mosques, markets etc. All the works were done for the benefit of the community. These traditional philanthropic activities have changed a lot in view of the gradual changes in the political and socio-economic spheres. Now social works involve professionalism, requires management systems and invites specialization.

Concept of NGOs

Verbally, the term 'non-governmental' is the direct version of the classical Greek word for anarchist, which meant "without" or "non" government. Some leading European scholars including Godwin, Tolstoy, Proudhon and Kropotkin promoted the usage of the term to connote "freedom from external (government)" [control]. Anarchism in social affairs means "replacement of the authoritarian state by some form of non-governmental cooperation between free individuals" (Fonseka, 1991). In the contemporary era we find some formal and non-formal groups, communities, societies, agencies or organizations engaged in reducing the sufferings of the masses and they are known as NGOs. Thus NGOs are not only non-governmental but voluntary also. So in its simplest sense NGOs are referred to as "… any voluntary non-profit agency involved in the field of development, cooperation or in education and policy advocacy activities" (Brodhead and Tim & others, 1988). Any agency that is not controlled by

Map 1: Bangladesh

government can be regarded as an NGO. The NGOs are also defined as organizations that are " established and governed by a group of private citizens for a stated philanthropic purpose and supported by voluntary contribution". (1)
OECD. Voluntary Aid for Development: The Role of NOn-Governmental Organization, 1988, Paris.

Methodology of the study

Several methods and techniques have been applied to conduct this study. The methods and techniques applied for this study are interviewing, observation and schedule. Each and every method has been applied in times of need and situation of the study. After developing specific objectives of the study we selected the appropriate study design that included the selection of the study area, definition of the study unit, sampling design, preparation of the interview schedule, data collection. We also devised the major indicators in order to measure socio-economic conditions of the study population.

Study Area

Puthia UZ in Rajshahi district as a rural area (Figure 3) and an urban area, was selected purposively Ward number -6, Ward number -25 in Rajshahi City Corporation (Figure 2) as the study area. In fact, Rajshahi District is the study area of this research. Rajshahi is an important district of Bangladesh situated in the northwest of the country. This district could be treated as an ideal representative of the whole of Bangladesh as all of the socio-economic criteria of this country; all walks of people, rich and poor, educated and illiterate, rural and urban people live in this district. So, this district could easily be treated as ideal representative of Bangladesh and we can get an idea about socio-economic impact of NGOs in Bangladesh through conducting this study.

Indicators used to examine the socio-economic impact of NGOs

- Changes in condition of homesteads, housing facilities;
- Changes in education, training activities;
- Changes in women's participation in decision-making,
- Changes in health, family planning, sanitation and other facilities;
- Changes in employment and income earning, savings and expenditure activities;
- Changes in land ownership pattern;
- Changes in economic and social condition;

Map 2: Study Area Rajshahi City & District

Development of NGOs in Bangladesh

After the independence of Bangladesh the number of NGOs has increased drastically. The type of their approach to intervention has also changed, i.e. from relief operation to self-reliant development. In recent times, the NGO approach to development has been essentially a target group approach. It has also been termed as a 'people centered development approach', 'process oriented approach', and others have called it an 'emerging reformist approach', as it has evolved from the choices of intervention by the NGOs. NGOs started their operations in Bangladesh as relief organizations after the 1970 cyclone. The war of liberation of 1971 followed immediately after the devastating cyclone of 1971 and a section of people and organizations participated in relief activities during the war (Saifullah,2001). Following independence many of these individuals and groups did not go back to their previous professions, but formed NGOs. A large number of international voluntary organizations also began their operations in Bangladesh after independence as the reconstruction of the war devastated economy attracted major inflow of resources from overseas. In many cases, branches of these international NGOs have gradually transformed themselves into indigenous NGOs and continued their pioneering role in the development of the country. The last two decades of the past century experienced enormous growth of NGOs all over the world. Bangladesh has been regarded as a land of NGOs (World Bank, 1995).

The mushrooming growth of NGOs in Bangladesh is partly due to the increase in foreign aid and humanitarian help to cope with many natural disasters that Bangladesh often experiences. Foreign funding is sometimes considered as a lucrative opportunity to collect resources for the NGOs. There are many sources of funding for NGOs; The NGO Affairs Bureau of Bangladesh (NGOAB) keeps records of all foreign funds directly channeled to NGOs. (Shailo,1994)

NGOs in Bangladesh like to manifest themselves as advocates of social change. For bringing effective social

Map 3: Puthia Upazila

change the first priority is to eradicate all kinds of discrimination in the society be it sexual, racial or any other kind. For effective social change in Bangladesh, empowerment of women is the first thing to do. No doubt, the poorest women are the most disadvantaged section in the society, especially because they do not have access to information and resources, so they are lagging behind in the process of development. NGOs would like to involve these women and enhance their participation in the development process.

Profile of Socio-Economic background of the Respondents

Socio-economic background reveals the socio-economic condition of the respondents under the study area. Socio-economic status focuses the social-economic and cultural situation of the people and their way of life in which they live. The socio-economic condition is confined here in connection with the age structure of the people of respondents, their social class, family types and membership, composition of the family, marital status, level of education, land ownership pattern, occupation structure, income and expenditure, pattern of houses and types of living area of the respondents belonging.

Table 1 shows the area, class, sex and involvement and non-involvement in the NGOs. It can be observed that out of 60 respondents in the upper class only and 1 male respondent in a rural area are involved with NGOs, but in the lower class 37 male and 117 females are involved with NGOs. On the other hand, in the middle class 10 males and 38 females are involved with the NGOs. Therefore out of 460 respondents, 226 are involved with NGOs and 234 are not involved with NGOs.

Major Findings

In this section I have made an attempt to show the impact of the NGOs on the socio-economic condition of the people of the study area.

Enrolment of Children in school

In any society education is a matter of paramount national importance and considered as the potential human endowment. NGOs emphasise the value of education for social development and it plays a vital role with governments. In research data being collected for the children who aren't involved with the NGOs activities, there is a

Area	Sex	Class and Involvement									Total
		Upper			Middle			Lower			
		Inv	N-Inv	Total	Inv	N-Inv	Total	Inv	N-Inv	Total	
Rural	M	1	19	20	10	30	40	37	33	70	130
	F	0	20	20	28	22	50	80	20	100	170
	T	1	39	40	38	52	90	117	53	170	300
Urban	M	0	10	10	0	20	20	32	8	40	70
	F	0	10	10	8	22	30	38	12	50	90
	T	0	20	20	8	42	50	70	20	90	160
Total		1	59	60	46	94	140	187	73	160	460

Table 1: Determinates of NGO Involvement to Residence and Gender

Variables		Categories	Involved (%)	Not Involved (%)	Number of Cases
Enrollment of Children in School		Son	45.58	54.42	215
		Daughter	42.16	57.84	204
		Children	41.9	58.81	318
Uses of Space (Square ft.)		<500	25.31	74.69	245
		501 -1000	59.05	40.95	105
		1001-1500	89.29	10.71	56
		1501>	96.30	3.70	54
House type	Floor	Paka (brick built)	28.42	71.58	183
		Kacha (	65.70	34.30	277
		Chi- Square = 61.31	DF=1		Significance = 0.00
	Wall	Paka	35.27	64.73	224
		Kacha	65.43	34.57	188
		Straw	91.67	8.33	12
		Tin	50.00	50.00	6
		Fence	58.62	41.38	29
		Bamboo	100	0	1
		Chi- Square = 47.41	DF = 5		Significance = 0.00
	Roof	Paka	15.29	84.71	85
		Straw	60	40	7
		Tin	41.03	58.97	368
		Chi- Square = 54.87	DF = 3		Significance = 0.00
Whether have Kitchen		No	87.50	12.50	16
		Separated	44.30	55.70	377
		Joint With House	79.10	20.90	67
		Chi- Square = 36.48	DF = 2		Significance = 0.00
Latrine of Respondents house		No Latrine	100	0	13
		Own Separated	41.57	58.43	344
		Common	75.73	24.27	103
		Chi- Square = 49.93	DF = 2		Significance = 0.00

Table 2: Social Conditions Change of the Respondents by Involvement with NGOs

Variables			Categories	Involved (%)	Not Involved (%)	Number of Cases
House ownership			Self	47.3	52.9	403
			Rented	77.1	22.9	35
			Govt. property	77.3	22.7	22
			Chi–Square = 18.04 Significance = 0.00	DF= 2		
Earner	Male		No Earner	45.45	54.55	11
			1-2	51.85	48.15	405
			3+	43.18	56.82	44
			Mean	2.06	2.08	460
			Std. Deviation	0.32	0.36	460
			Chi–Square = 1.33 Significance = 0.52	DF= 2		
	Female		No Earner	53.87	46.13	323
			1-2	43.80	56.20	137
			Mean	1.34	1.26	460
			Std. Deviation	0.48	0.44	460
			Chi–Square =3.91	DF=1		Significance = 0.05
Assets	Agri-culture Land	Rural	0	107	68.59	59
			1-50	21	13.46	11
			51-100	13	8.33	15
			101-250	13	8.33	16
			251-500	2	1.28	15
			501-1000	0	0	16
			1001+	0	0	12
			Total	156	100	144
			Mean	.6026	2.09	
			Std. Deviation	1.0329	2.14	
			Chi-Square = 55.007	DF = 6		Significance = 0.00
		Urban	0	76	97.44	82
			1-50	0	00	0
			51-100	1	1.28	0
			101-250	1	1.28	0
			251-500	0	0	0
			501-1000	0	0	0
			1001+	0	0	0
			Total	78	100	82
			Mean	.641	.000	
			Std. Deviation	.40579	.000	
			Chi-Square = 2.129	DF = 6		Significance = .34
	Live-stock	Cow	None	50.47	49.53	321
			1 - 3	48..55	51.45	124
			4 >	48.67	47.62	15
		Goat	None	52.38	47.62	252
			1 - 3	60.12	39.88	163
			4 >	51.11	47.89	45
		Duck & Chicken	None	52.74	47.24	201
			1 - 10	55.17	45.87	203
			11 >	53.57	53.57	56
Solvency	Rural		Surplus	22.08	77.92	77
			Deficit	85.71	14.29	28
			Easy Going	58.97	41.03	195
	Urban		Surplus	0.00	100.00	22
			Deficit	82.00	18.00	50
			Easy Going	42.05	57.95	88
			Chi- Square =44.17	DF = 2		Significance = 0.000

Expend-iture	Rural	Male	Same as before	40		55
			Decrease	50		02
			Increase	25.25		99
		Female	Same as before	60		04
			Decrease	50		00
			Increase	74.75		74
			Chi- Square =24.320	DF = 3	Significance = 0.000	
	Urban	Male	Same as before	75.00		01
			Decrease	0		0
			Increase	39.19		45
		Female	Same as before	25.00		04
			Decrease	0		0
			Increase	60.81		74
			Chi- Square =2.437	DF = 2	Significance = 0.30	

Table 3: Economic Conditions Change of the Respondents by Involvement with NGOs

significant difference between those children involved in NGOs and those not involved with NGOs of the respondent children. Findings indicate that urban children enroll more than rural children. In all classes involved a family's children are the greatest indication of positive impacts of NGOs. Daughters in urban areas enroll most often. In conclusion we have seen that NGOs have a positive impact on school enrollment.

Area of living space and Involvement with NGOs

Living Space is an important factor in attaching socio-economic status in our society. Table 2 reveals that most of the beneficiaries (involved group) 74.69% and 40.95% are in the 500 square feet and below 1000 square feet delimiter. On the other hand, in the involved group 25.31% and 59.05 % are in the 500 square feet and below 1000 square feet delimiters respectively. The Table informs that the involved people use an average .26 square feet but those respondents the not involved with NGOs use a 1.42 square feet space. The chi-square test result shows that beneficiaries (involved group) and non-involved are not homogeneous at all in terms of use of living space. The data indicates that there are significant differences between the involved and not-involved with NGO people. It appears from the findings that use of space, in square feet, increases with those not involved but decrease with the involved.

Structure and nature of House

Socio-economic development of a country is not possible without improving the housing condition of the people. Table 2 provides information on the House nature of the NGOs beneficiaries (involved) and not - and that of their house type respectively. Table 2 shows that a large majority of the not involved 71.58 percent lived in paka (brick-built) floor of houses but in the involved group 28.42 percent lived in a house with a paka floor. It seems that the house walls in the involved groups were paka 35.27 percent, Kacha 65.43 percent, straw 91.67 percent, tin 50.00 percent, fence 58.62 percent, bamboo 100 percent were lived in, but in the not involved groups paka 64.73 percent, Kacha 34.57 percent, straw 8.33 percent, Tin 50.00 percent, Fence 41.38 percent, Bamboo 00 percent were lived in. Again The small number of the involved household roof 15.29 percent in paka 60 percent in straw and tin 41.03 percent were lived in. On the other hand of the involved household roof 84.71 percent in paka 40 percent in straw and tin 48.97 percent were lived in. However, the chi-square test results suggest that the involved groups and the not involved groups house nature and structure difference is statistically significant.

Kitchen of the respondent's house

Every family should have kitchen to prepare their daily foods. Kitchens owned by the households are positively related with NGO involvement. It was seen in the Table-2 that 87.50 percent respondents of the involved group had their no kitchen and 12.50 percent of not involved group had no kitchen. On the other hand, in the involved group 44.30 percent had separate and the not involved group 55.70 percent had separate kitchens respectively. We find from table in the involved groups 79.10 percent respondents had spare (joint with house) kitchen, on the other hand 20.90 percent in the not involved groups had share kitchen. It is also evident that the difference is statistically significant at high level (0.000) with 2 DF.

Types of Latrine

Latrine is one of the household characteristics assessed socio-economic conditions. The types of latrine (toilets) being used by the household is an important indicator of access to health care facilities, we may have enough information about the health consciousness

of the respondents of target group (involved group) and control group (not involved) through reviewing their available latrines or toilet facilities from the following table. It is seen that 13 respondents in target group had no latrine in house and they used open field for evacuation. On the other hand, 41.57 percent respondent of target group and 58.43 percent of control group used separated latrine. Again 75.73 percent of respondents of control group and 24.27 percent of target group used common latrine. It is also evident that the difference is statistically significant at high level (0.000) with 2 DF. So it can be stated that in the regard of using hygienic latrine, the respondents of control group (not involved) were in better position.

House ownership

Dwelling is one of the basic needs of the human being and they make dwelling for their safe shelter. House ownership is the sign of security and solvency and ownership carries great prestige. The data reveals that 47.3 percent respondent of the involved group lived in their own house but in the involved group 52.9 percent respondents lived in their own house also. On the other end, out of 460 household head 77.1 percent involved with NGO and 22.9 in the not involved with NGO respondents live in rented house and 77.3 in the involved and 22.7 percent dwellers lived in Government property or slum area respectively. The relationship found statistically significant at high level.

Income Generating Activities

The ability of household to meet its basic needs is mainly dependent on its wealth, income, and employment. NGOs in Bangladesh like to manifest themselves as advocates of economic change. For bringing effective economic change the first priority is to eradicate all kinds of discrimination in the society be it sexual, racial or any other kind. For effective economic change in Bangladesh increase women income is the first thing to do. Therefore women are the most chosen clienteles in all NGOs credit programs. The earner status in definite male and female categories in the (Table-3). It is seen that out of 460 household 11 male (45.45 percent from the involved group and 54.55 percent from the not involved group) and 323 female (53.87 percent from the involved group and 46.13 percent from the not involved group) heads had no earn no money. Again in the involved group 51.85 percent had male earner in 1-2 person. On the other, in the not involved group 48.15 percent had male earner in 1-2 person. But for female earner in the involved group 43.80 percent had earned in 1-2 person. On the other, in the not involved group 56.20 percent had female earner in 1-2 person respectively. The difference is statistically significant in male earner. The difference in female income earning activities is statistically significant at a high level 0.05 high chi-square vale (3.91) with 1 Degrees of freedom. It should be mentioned here that the no positive impact on female income after involvement in NGOs.

Land ownership pattern

In an agrarian economy like Bangladesh the importance of land need not be overemphasized. Land is intimately linked with the social and economic well being of the vast majority of the rural and urban population. The distribution and control of land to a large extent underscores the pattern of rural income distribution as well as the power structure within the rural society.

The data related to cultivable land holding in rural & urban area shows (Table-3) that 68.59 percent of the involved group and 40.97 percent of the not involved with NGO group had no cultivable land in rural area. On the other end, 97.44 percent of the involved group and 53. of the not involved group had no land respectively. In terms of the average size of land owned, the involved and the not involved are of almost unequal standing. The average size of land owned was .61 decimals for the involved group and 2.09 decimals for the not involved group in rural area. On the other hand, land owned was .000 decimals for the involved group and .641 for the not involved group. The difference between these averages is significant statistically. However the chi-square test results suggest that in cultivatable land own in rural areas of the involved and the not involved group is statistically significant.

Livestock

The necessary assets in Bangladesh consist of livestock. We found that the proportion of cows, goats and ducks and chickens owned by the involved and the not involved with NGOs were almost the same at the investigation (study) time. Table 3 shows that 48.55 percent had 1-3 cows and 51.45 percent had more than 4 cows in the involved group but in the not involved group 52.45 percent had 1-3 cows and 51.13 percent had more than 4 cows respectively. Again in the involved group 60.12 percent had 1-3 goats and 40 percent had more than 4 goats; on the other hand, in the not involved group 39.88 percent had 1-3 goats and 60 percent had more than 4 goats. In the involved group 55.17 percent had 1-3 ducks and chickens and 35 percent had more than 4 ducks and chickens. But in the not involved group 44.83 percent had 1-3 ducks and chickens and 65 percent had more than 4 ducks and chickens.

Solvency

Solvency means the amount of money a family saves. The ability of a household to meet its basic needs is mainly dependent on its wealth, income, and solvency. In the findings 28 household heads in the rural area and 50 respondents in the urban area were found to have no savings. According to Table 3 22.08 percent of respondents of the involved group and 77.92 percent of the not involved group in rural area had a surplus of money for maintenance of the family. On the other hand, 100 percent of the not involved had a surplus of money in the urban area.

Again 58.97 percent of the involved group in rural areas and 41.03 percent of the not involved group in rural areas, but 42.05 percent

of the involved group and 57.95 percent of the not involved group, had a comfortable family income. On the other hand a deficit of family income in both rural and urban areas of the involved group is higher than that of the not involved group. The difference is statistically significant at a high level. NGOs should be viewed as the institution for development of the poor. We would like to see in relation to income, saving, expenditure and living of beneficiaries in the areas under study.

Expenditure

In the present study we tried to find whether expenditure of the beneficiaries remain, decrease or increase with participation in a NGO. Expenditure items of a family includes food, clothes, education, treatment, recreation etc. The volume of expenditure varies from one family to another. Table 5.3.5 presents the structure of the expenditure that increases the beneficiaries of females in both areas. As we see in the Table (5.3.5) the average percentage of the beneficiaries is 40.00 percent of males in rural area and 60.00 percent of females in rural areas who said that their expenditure is the same as before participation of a NGO. On the other hand in urban areas 75.00 percent of male and 25.00 percent of female income was the same as before.

Again in theTable it was seen that the beneficiaries in the rural area were 25.25 percent of males and 74.75 percent of females whose expenditure has increased. On the other hand in urban areas 39.19 percent of males and 60.81 percent of females' expenditure has increased. The relationship is statistically significant.

Findings indicate that the beneficiaries have improved their livelihood by association with NGO activities.

Conclusions

The present study is the most comprehensive of all the studies available on the impact of the NGOs promoted alternative approach to development, which is based on the grassroots level mobilization of the beneficiaries in selected areas of Bangladesh. In this study I have intended to identify the changes of socio-economic condition of the NGOs beneficiaries. NGOs are engaged in the change of the socio-economic condition of the beneficiaries and women. It clearly revealed from the finding of the study show that beneficiaries who receive different benefit from NGOs who become the NGO members are more likely to undertaking income generating activities, raise their income and productivity, empower themselves, adopt family planning, child school attainment rasie, reduce child morality, prevent childhood disease and attain self-reliance in meeting their socio-economic and other welfare needs than those of their comparable non-beneficiaries. For example, analysis of the income data reveals that the average of female involves with NGOs is 1.34 and non-members (not-involved) income is 1.26 respectively. Indication the NGO beneficiaries increase income from participation the NGOs activities. It is, however, some limitations was observed in the NGO effort like sub-divided working periphery, area based differences in activities, participating in commercial activities, supporting political parties etc. If NGOs can overcome these limitations then it can surely be hoped that they continue playing the role of savior of social and lead the country to sustainable economic growth and development. The contributions of the NGOs in Bangladesh to national development need to be recognized. From their grassroots experiences, the NGOs can complement the government efforts to improve the condition of the poor. Collaboration can utilize the potentials and advantages of both the sectors. GOB recognizes the contribution of the NGOs and also accepted them as partners of development.

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An appraisal of Saudi Diploma in Family Medicine (SDFM) from the Perspective of the SPICES Model

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ABSTRACT

The Saudi Diploma in Family Medicine (SDFM) being a recent postgraduate program in family medicine, started in 2008. The curriculum is designed to fulfill all requirements of recent trends in methods of teaching for medical education. This diploma program includes theory as well as practical (clinical) classes. It is pragmatic and structured teaching in Family Medicine for primary care physicians. In this article we attempt to compare the SDFM curriculum with the SPICES model. The SPICES model has six innovative approaches to consider when planning a curriculum. Each of these approaches is a continuum, with more recent developments located to the left and more traditional strategies to the right.

The comparison shows that there are some shortage areas in the curriculum of SDFM and it is found that a move towards the right side of the SPICES model, especially the "problem-based approach" dimension, needs more attention.

Key words: SPICES model, SDFM, postgraduate diploma, Family Medicine, medical curriculum

Introduction

The Saudi Diploma in Family Medicine (SDFM) was recently started in Saudi Arabia. This diploma program includes theory as well as practical (clinical) classes. It is pragmatic and structured teaching in Family Medicine for primary care physicians. The primary aim of the program is described as "to increase the knowledge and skills of primary care physicians in the Kingdom of Saudi Arabia (KSA)". This will be established by providing evidence based and up to date training and teaching methods. The participants are expected to become enthusiastic general physicians, who provide high quality, empathetic, patient-centered, holistic, evidence-based, and resource-conscious medical services in response to the needs of the population(1). These services will

cover the whole life spectrum and will be within the context of the person and the community.

Educational strategies applied in SDFM:
The SDFM program is based on longitudinal integrated teaching with some components of vertical teaching as depicted in Figure 1. The curriculum is focused on different styles of teaching. For instance, the problem solving method is strongly emphasized as a desired method of learning as it encourages critical thinking and makes learning relevant. In fact the practice of Medicine is itself "problem-solving", with the patient's complaint as the problem. This method is used with other instructional methods that meet this objective, which includes "Case studies" and "Case-based learning" (2).

The trainees are placed on primary health care level and strongly emphasized the conditions that are prevalent in the community of KSA while other global issues are not ignored. Very early on in the curriculum, trainees are trained in the use of modern electronic sources to acquire information and make presentations.

Nevertheless, the independent learning is not ignored and this is achieved through specific assignments and projects that require the trainees to learn to gather and sieve information in order to be able to provide answers to specific questions. The trainees are able to search relevant information to develop them.

The SPICES Model:

In 1984, Ronald Harden and his companions identified six innovative approaches to consider when planning, or developing a curriculum(3). They saw each of these approaches as a continuum, with more recent developments located to the left and more traditional strategies to the right. They suggest that by considering where a curriculum should fit on each of the six continua, a curriculum can be reviewed (or planned from scratch) more effectively. They called it the SPICES model. This model also helps to plan and improve teaching methods and assessment. Features of the SPICES model are given in Box 1.

S	student centred	vs	teacher centred	T
P	problem based	vs	information gathering	I
I	integrated	vs	discipline based	D
C	community based	vs	hospital based	H
E	elective	vs	uniform/standard	U
S	systematic	vs	apprenticeship	A

Box 1:
Mnemonic of the SPICES Model

Application of the SPICES Model to the SDFM
In the following paragraphs, we try to compare each component of the SPICES model to SDFM curriculum.

STUDENT CENTERED - TEACHING CENTERED
The SDFM curriculum is a mixture of student and teacher centered education because of the following reasons.

- The curriculum was designed by the teachers keeping in mind the needs of students
- Teaching content was prescribed by teachers on the basis of what they feel learners should know
- Learner centered methods such as small group work were also used
- Expert outside speakers/resources were usually utilized
- Self directed learning is encouraged

Although the SDFM is a mixture of both teacher and learner centered, it is probably in the middle of the SPICES continuum.

PROBLEM BASED VS INFORMATION GATHERING
This part of the SPICES model also doesn't match fully with the SDFM curriculum. For example, there are certainly pre-defined objectives and in order to fulfill those objectives; students should acquire some knowledge. This is more towards information gathering rather than problem-based. However, discussion on patient problem scenarios, health care delivery problems and ethical issues developed an integrated body of knowledge that is deeper, more effective, and has greater content relevance in the appropriate context and more towards problem oriented learning (POL) or task-based learning (TBL). Problem-based learning requires more focus on identification of learning issues and the faculty and students should understand the difference in all learning methods.

The application of gathering knowledge is difficult to apply if not taught in a problem-based and problem-solving approach.

INTEGRATED VS DISCIPLINE BASED
Integration is the main tool to bind different disciplines in medical education. The family medicine curriculum requires a high integration among different disciplines.
There are mainly two types of integration; vertical and horizontal. This diploma curriculum is an example of horizontal integrated curriculum. This integration has its own limitations such as time management, coordination among different disciplines and over burden of teachers to maintain integration.

This curriculum has reinforcement for continuity care at primary level, for example while logical sequences are missing. It is not flexible and does not move from simple to complex knowledge.

Weeks	1-8	9-16	17-24	25-32	33-36	37-42	43-50	51-52
Duration	8 weeks	8 weeks	8 weeks	8 weeks	4 weeks	6 weeks	8 weeks	2 weeks
Rotations	FM 1 (Introduction to FM)	Internal medicine	Pediatrics	ENT Ophthalmology Dermatology Psychiatry	Obstetrics Gynecology	General surgery Orthopedics	FM 2 (FM clinical rotation)	Eid Holidays
Typical week	1 day FM clinic + Half day release course (HDRC) 4 days Theory	1 day FM clinic + Half day release course 3 days 6 clinics Internal medicine 1 day 2 Skills sessions	1 day FM clinic + Half day release course 3 days 6 clinics Pediatrics 1 day 2 Skills sessions	1 day FM clinic + Half day release course 4 days 2 clinics per each specialty	1 day FM clinic + Half day release course 3 days 3 clinics Obstetrics 3 clinics Gynecology 1 day 2 Skills sessions	1 day FM clinic + Half day release course 3 days 4 clinics Surgery 2 clinics Orthopedics 1 day 2 Skills sessions	1/2 day Half day release course 3.5 days 7 clinics Family medicine 1 day 2 Skills sessions	
				E M E R G E N C Y 25 total on-calls on week ends • 12 adults • 8 pediatrics • 5 obstetrics			

(Left:)
Figure 1: Program summary of the SDFM.

COMMUNITY BASED VS HOSPITAL BASED

The whole program is based on a primary health care approach so that in direct contact with the community the learners are taught to serve the community. They are able to see a wide variety of conditions at a wide variety of stages. They are taught to approach patients through the bio-psychosocial approach. However there are also hospital rotations in order to get orientation of different disciplines but not to break the continuity of care in the community; for the whole year the students have at least one full day primary health care clinic per week.

ELECTIVE VS UNIFORM

Although the curriculum is based on outcome and competencies it doesn't allow this opportunity to elect any subject on the bases of students' wishes and requirements, which are called student selected components (SSC). A standard program is offered and through which all trainees have to go. The curriculum is more towards teacher centered rather than learner-centered.

SYSTEMATIC VS APPRENTICESHIP BASED

The training is prescribed, more defined and structured e.g., they have to complete certain tasks and be able to perform certain skills in a specified time. The core competencies are identified and labeled. The curriculum has a full road map and defines all required areas including expected learning outcome, content and expertise, learning location and timetable etc. A schematic matching of the SDFM with the SPICES Model is given in Figure 2.

Teachers' and students' perspective of the curriculum

The teachers thought that it was one of the best standard curriculums and there is no problem of access and it is very simple for using as a road

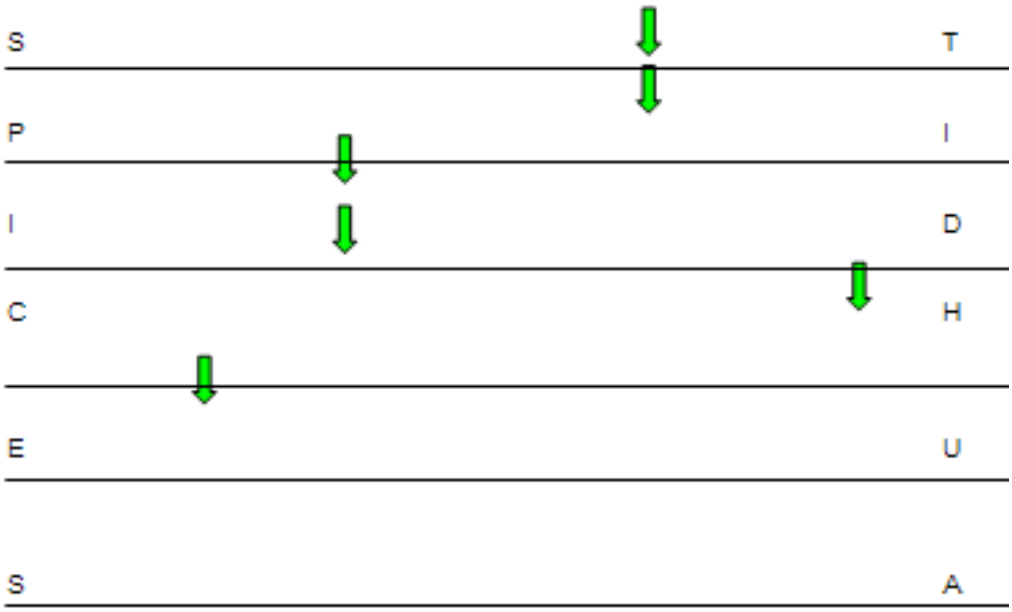

Figure 2: Evaluation of the SDFM using the SPICES continuum

map. However there are certain issues in the curriculum raised by teachers for example, that the role of discipline was not defined clearly and there is some conflict in written objectives and the actual practical applicable objectives, especially in hospital rotation.

The students appreciated the whole curriculum but they faced a problem in integration of theory classes and converted the theories into practice because they had their own experiences. There is another problem that they don't understand what is expected from them in certain competencies and also the teachers are not clear in some rotations in the hospital training about what to teach and what not to teach.

This diploma is a pilot program applied for the first time in Saudi Arabia and as Prof. Abrahmason(4) described, curriculum is a live document and needs to be modified according to need whenever required so it will be improved by receiving feedback from all stakeholders.

Discussion

Various curricular innovations were adopted by medical schools worldwide in an attempt to produce medical graduates that could meet future healthcare needs of societies. Curricular innovations tend to be implemented in new programs upon their establishment. Established programs seem to implement innovations much later. The SDFM being a recent postgraduate program in family medicine has tried to include recent methods in medical education.

Curricular trends appear to move towards integration, student-centered and problem-based learning as well as community-oriented medical education, with the Student-centered learning, Problem-based learning, Integrated teaching, Community-based education, Electives and Systematic program (SPICES) model used as a reference in some other programs(5-8). The majority of the medical schools in the GCC countries are planning to change their curricula to a hybrid PBL curricula. Almost all of the new medical schools in the GCC countries are moving towards the more desirable aspects of the SPICES model(7). In Malaysia the SPICES model is accepted as a good reference to train medical graduates who are able to practice and make decisions independently and be sensitive to the needs of the country's multiracial, multi-religious, and often remote communities(5).

We should put more emphasis on the learner. Most teachers are familiar with this method - no extra training costs will be required. However, there are certain inhibiting factors, for example, the faculty should prepare and learn how to motivate students towards self-directed learning., A clear picture should be there for completing tasks. The assessment tools should also include a portfolio, which requires so many other things including political will, logistic support and a grass roots level approach(9). We need to increase learner motivation, prepare learners for lifelong self directed education, which is a somewhat new concept in KSA(10) and it should start from undergraduate education.

The SDFM curriculum was tried to be made more problem-based learning but was not able to be applied to the desired extent. Most of the students were aware of the problems as they learned it in their undergraduate program but some may need help to develop problem solving skills and understanding of the fundamentals and vocabulary of each discipline. Problem-based learning is a philosophy and might not be applicable in adult learning in its true essence. This area also requires more participation of the teacher as well as learner and it will increase the burden on all stakeholders in terms of work as well as cost.

The SDFM curriculum is overcrowded and initially in theory classes highlights concepts rather

than knowledge, which might not make the trainees understand the application of knowledge. Therefore it is required to modify and revise it in order to fulfill the objectives. One of the solutions of the problem is to convert the theory sessions into more practical workshops or electives. This can be a good way of dealing with an overcrowded curriculum. The learners can then identify and tackle areas in which they feel they are deficient and electives can facilitate their career choices.

Conclusion

The Saudi Diploma in Family Medicine is a recent initiative in Saudi Arabia aiming at high quality training for family physicians. Although there are some shortage areas, the SDFM is trying to apply the innovative approaches through the SPICES model in medical education. However there are some constraints and limitations to apply the SPICES model as it is.

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UNUSUAL PRESENTATION OF SPLENIC INJURY AFTER BLUNT ABDOMINAL TRAUMA

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ABSTRACT

Background: The spleen is the most commonly injured viscous in blunt abdominal trauma. Abdominal pain with left upper quadrant tenderness or signs of peritonitis in a patient with history of trauma is the most common presentation of this condition.

Objective: To describe an unusual presentation of splenic rupture in a patient with history of motor vehicle crash and blunt abdominal trauma.

Case Report: A young man was brought to the Emergency Department with a history of being in a motor vehicle crash 10 hours earlier. He experienced gradually worsening difficulty breathing while sitting or lying down for the previous 4 hours, although he was asymptomatic in the upright position. He was transported to the hospital .The patient was found to have left upper quadrant abdominal tenderness on examination and free fluid in the pelvis on the focused abdominal sonography for trauma. A grade III splenic injury with hemoperitoneum was diagnosed on computed tomography scan and the patient was treated with splenectomy.

Conclusion: We report an unusual presentation of a splenic injury in a young man who had symptoms only in the supine position.

Keywords: blunt abdominal trauma; FAST; splenic injury

Introduction

The spleen is the most commonly injured viscus in blunt abdominal trauma and can result from the most trivial of traumas (1,2). The classical presentation is that of a hemodynamically unstable patient with a history of trauma, with severe abdominal pain and signs of peritonitis. However, the absence of hemodynamic instability, pain, or tenderness does not rule out splenic injury (3). A thorough physical examination and prompt imaging studies in the form of ultrasound or computed tomography (CT) scan may be needed to rule out intra-abdominal visceral injuries, to prevent delay in treatment as well as to decrease morbidity and mortality from this injury (4).

Case Report

A 26-year-old man was brought to the Emergency Department (ED) at 6:00 a.m. with inability to sit or lie down. The patient was asymptomatic on standing or walking, but would become severely dyspneic on attempting to sit or lie down. The history revealed a fall from a motorcycle sustained 10 hours previously while riding at a speed of about 30 km/h. The patient reportedly

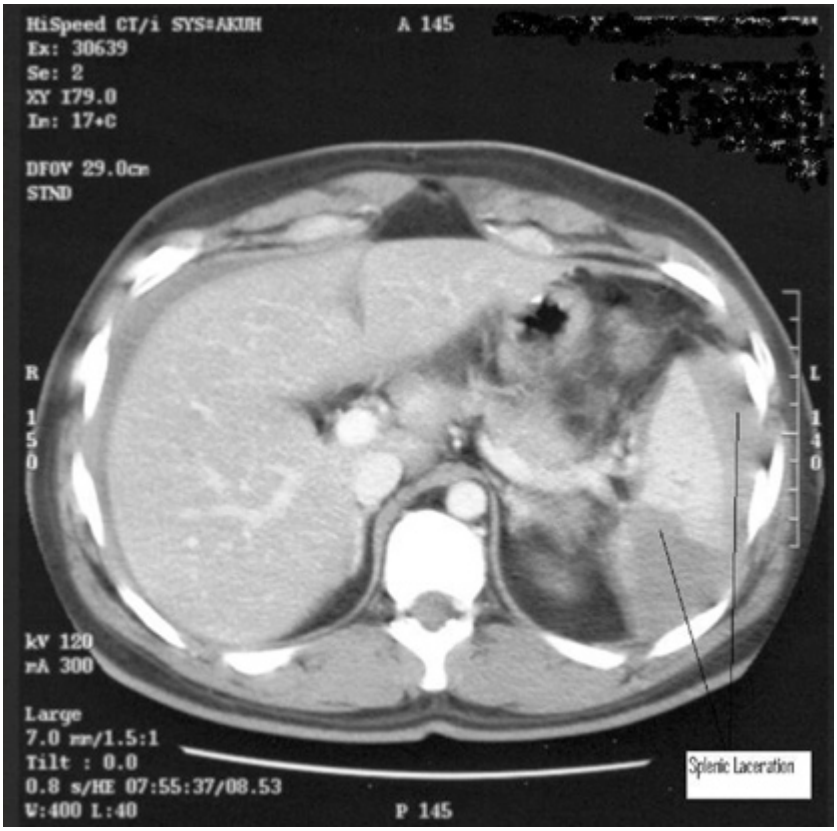

Figure 1

fell on the left side of his body but did not have any pain after the crash. He thereafter ate a full meal, passed urine and stools, and went to sleep. Six hours later he awoke with severe shortness of breath, which significantly improved on standing upright. The patient made several attempts to sit down but was unable to do so without severe pain. He was brought to the ED .The patient's initial vital signs showed a blood pressure of 110/70 mm Hg and a pulse rate of 112 beats/min. Chest and abdominal examination revealed bilateral wheezes and upper abdominal tenderness with guarding. Chest and pelvic X-ray studies and a focused assessment with sonography for trauma (FAST) examination were immediately carried out. The X-ray studies were unremarkable but limited. The FAST examination revealed free fluid in the pelvis. Because the patient was hemodynamically stable and the FAST examination could not be completed , the decision was made to do a CT scan of the abdomen and pelvis. Narcotic analgesia and benzodiazepines improved the patient's symptoms and he was able to lie flat for an abdominal CT scan. The CT scan showed significant hemoperitoneum and lower pole splenic laceration extending to but not involving the hilum, consistent with grade III splenic injury (Figure 1). The patient was taken to the operating room for an emergency exploratory laparotomy. Intra-operative findings included 700 mL of hemoperitoneum with splenic injury consistent with CT scan findings, although also involving part of the hilum, thus making it a grade IV injury. A splenectomy was then performed. The patient had an unremarkable post-operative course and was discharged a few days later.

Discussion

In a patient with blunt trauma with significant pathology, pain, abdominal tenderness, guarding, and rigidity are the most common findings (4). However, the accuracy of these physical findings may be questioned, because in patients with intra-abdominal trauma, the sensitivity and specificity of abdominal pain and tenderness have been estimated at 82% and 45%, respectively (5). As many as 40% of patients may have no symptoms or signs on initial presentation in the ED (3). Traumatic splenic injury may result in hematoma, laceration, fragmentation, or complete devascularization (6). The classic physical findings of splenic rupture are left shoulder pain, left upper quadrant pain and tenderness, and Kehr's sign (left shoulder pain from irritation of inferior border of left diaphragm by hematoma). Absence of one or more or even all of these signs does not rule out splenic injury. Diagnosis is based on a thorough physical examination and confirmed with the FAST examination. In a hemodynamically stable patient, treatment can be planned on the basis of contrast-enhanced CT scan, as non-operative management has been advocated, based on various grades of injury and clinical presentation (7). In our case, the patient had a definite history of blunt abdominal trauma, although he presented late, complaining of inability to sit or lie down, as both induced breathlessness, which is an unusual presentation. Our initial impression was that of a possible diaphragmatic injury with or without splenic rupture. FAST examination was carried out immediately, and CT scan was obtained within 30 minutes of the patient's arrival in the ED. This unusual presentation can be explained in the following way. Firstly, this patient had a hemoperitoneum. In an upright position the hemoperitoneum would be in a more dependent position and hence would not exert much mechanical pressure on the diaphragm and would not interfere with the normal function of the diaphragm. In the erect posture, therefore, the patient was able to breathe normally. When sitting or lying down, on the other hand, intense irritation of the inferior surface of the diaphragm coming in contact with the hematoma may result in avoidance of using the diaphragm as the chief muscle of respiration, thus causing breathlessness. This may also explain the late presentation and the exhausted appearance of the patient, as initially he was able to use his accessory muscles of respiration until 10 hours later, when he awoke from sleep. Other less likely

explanations are possible as well. Trauma significant enough to cause splenic injury is also likely to produce other lesions, for example, lower rib fractures with intercostal nerve involvement, abdominal wall contusions, and injury to the attachment of the diaphragm to the lower thoracic cage. A lower rib fracture not discernible on roentgenograms may impinge upon intercostal nerve(s) in a recumbent and supine posture and precipitate severe dyspnea. Contusions in diaphragmatic insertions into the thoracic ribcage may cause impaired excursion of the diaphragm and thus cause dyspnea in a particular postural position. One of the remote possibilities is that a diaphragmatic rupture was missed initially, because initial chest X-ray studies and CT scans may not show herniation of the abdominal contents into the thoracic cavity (8,9). Also, dyspnea is a commonly recognized and described clinical feature of diaphragmatic hernia.

Conclusion

Injury to the spleen can present with positional symptoms, with shortness of breath being a major finding when sitting or lying down. With the inability to sit or lie down, such a patient can present a diagnostic challenge for emergency physicians and surgeons.

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